

December 23, 2010

Ms Kirsten Walli  
Board Secretary  
Ontario Energy Board  
2300 Yonge Street  
26<sup>th</sup> floor, Box 2319  
Toronto, ON  
M4P 1E4

Dear Ms Walli,

Re: PowerStream Inc., Licence ED-2004-0420  
Conservation and Demand Management Strategy  
Board File No. EB-2010-0215

PowerStream submitted a CDM Strategy on October 29, 2010 in accordance with the CDM Code. In a November 12, 2010 letter, the Board directed PowerStream to provide estimated, prospective budgets for planned OPA-Contracted Province-Wide CDM Programs and Board-Approved CDM Programs. In order to have all information contained in one document, we are submitting an amended CDM Strategy.

The budget information is PowerStream's best estimate and includes proposed program administration costs, participant based funding and customer incentives. PowerStream proportioned the proposed OPA funding formula based on its annual targets. We have also updated the targets, which were finalized by the Board after we had submitted our Strategy.

We trust that this is satisfactory but if you have any questions, or if you require further information, please contact the undersigned.

Yours truly,

Colin Macdonald  
VP, Rates & Regulatory Affairs



# **PowerStream Inc.**

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## **Conservation and Demand Management Strategy 2011 - 2014**

**Submitted to:  
Ontario Energy Board  
October 29, 2010**

***Amended December 23, 2010 to add budget information and  
show the final CDM targets***

1. **Distributors Name:** PowerStream Inc.
2. **Total Reduction in Peak Provincial Electricity Demand Target:** 96 MW
3. **Total Reduction in Electricity Consumption Target:** **407,340** MWh
4. **CDM Strategy**

#### 4.1 Overview

This strategy document is submitted by PowerStream Inc. in accordance with the filing requirements set out in the CDM Code (Board File No. EB-2010-0215), specifically Appendix B, CDM Strategy Template. PowerStream's allocation of the provincial targets **as outlined in section 21.1 of its distributor's licence, amended November 12, 2010, is 95.570 MW** of peak demand savings and **407.340 GWh** of energy savings to be achieved over a four year period beginning January 1, 2011. PowerStream plans to meet the required CDM targets through the delivery of the OPA-Contracted Province-Wide CDM Programs for the four year period starting January 1, 2011. PowerStream anticipates it will achieve **100.2%** of its MW target and **101.8%** of its GWh target through delivery of these programs.

It is expected that the OPA will be issuing a CDM program focusing on low income consumers. PowerStream anticipates delivering this program and has prepared preliminary estimates of potential savings based on the draft program design provided by the OPA.

PowerStream is not including Board-Approved programs as part of this CDM Strategy document. PowerStream plans to perform a comprehensive evaluation of a number of potential Board-Approved programs after the OPA has released the details on all their Province-Wide Programs. An important component of this review will be ensuring that a selected initiative is not a duplicate of the OPA's provincial initiatives. As well, PowerStream believes it is important to focus its efforts on the delivery of the suite of OPA-Contracted Province-Wide CDM Programs, particularly in the short-term. PowerStream plans to collaborate with other companies including electric and natural gas LDCs as it contemplates the potential delivery of Board-Approved programs. PowerStream will communicate with the Board should there be any changes to its filed CDM strategy.

Tables 4.1.1 and 4.1.2 below outlines PowerStream's year by year plans for the MW and MWh savings. **Budget estimates were determined by proportioning the proposed OPA funding formula based on the annual targets.**

**Table 4.1.1 Net Peak Demand Reduction by Program**

Program	2011	2012	2013	2014	Total	Budget Estimate by Program
Consumer (includes Low Income) (MW)	7.8	8.0	8.2	7.6	31.6	\$30.3
Commercial & Institutional (MW)	11.5	11.8	12.2	11.5	47.0	\$35.4
Industrial (MW)	4.1	4.4	4.3	4.4	17.2	\$10.2
Total all Programs (MW)	23.4	24.2	24.7	23.5	95.8	\$76.0
Budget Estimate (\$ Millions)	\$27.4	\$22.8	\$15.2	\$10.6	\$76.0	

\*Budget estimates do not include amounts for low income as this program is yet to be defined

\*Budget estimates apply to the achievement of MW & MWh targets

**Table 4.1.2 Net Annual Energy Reduction by Program**

Program	2011	2012	2013	2014
Consumer (includes Low Income) (MWh)	12,440	10,794	11,107	10,502
Commercial & Institutional (MWh)	24,093	24,893	25,741	24,093
Industrial (MWh)	5,519	7,006	5,582	6,899
Total all programs (MWh)	42,052	42,693	42,430	41,494
Cummulative all programs (MWh)	42,052	124,195	248,768	414,835

Tables 4.1.3 and 4.1.4 provide program summaries.

**Table 4.1.3 Milestones**

Milestone	2011	2012	2013	2014
% of target MW (Cumulative)	24.3%	49.5%	75.2%	100.2%
% of target MWh (Cumulative)	10.3%	30.0%	60.5%	101.8%

Demand and energy savings from the implementation of Time of Use (TOU) rates and smart meters are excluded from the above targets. When the final results of TOU rate implementation and smart meters become available, PowerStream expects that these will be counted towards our overall target.

**Table 4.1.4 Summary of Annual CDM Targets and Budget Estimates**

<b>OPA-Contracted Province-Wide Programs</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>	<b>Total</b>
<b>MW</b>	<b>23.4</b>	<b>24.2</b>	<b>24.7</b>	<b>23.5</b>	<b>95.8</b>
<b>MWh - Cumulative</b>	<b>42,052</b>	<b>124,195</b>	<b>248,768</b>	<b>414,835</b>	<b>414,835</b>
<b>Total Budget (\$ Millions)</b>	<b>\$27.4</b>	<b>\$22.8</b>	<b>\$15.2</b>	<b>\$10.6</b>	<b>\$76.0</b>

## 4.2 Key Assumptions for the Development of Savings Estimates

The development of the savings estimates required a series of calculations and assumptions. Where possible, PowerStream has relied on OPA documents and tools including:

- Measures and Assumptions List (MAL),
- Program results from prior years as reported to the OPA/OEB,
- The “LDC Resource Planning Tool”,
- Free rider estimates provided by the OPA to PowerStream in a series of reports, and,
- PowerStream-specific household equipment estimates provided by the OPA.

This information was augmented by our own assessments of anticipated participation rates across the various initiatives, the development of savings estimates for building archetypes used to estimate impacts from custom programs and free rider estimates for initiatives or technologies that were not included in the various OPA documents.

As part of the development of the savings estimates, PowerStream conducted a review of all of its CDM activities to date. Many of the OPA-Contracted Province-Wide CDM Programs represent a continuation of existing initiatives (ERIP and the Refrigerator Exchange initiatives, for example), while others are either new initiatives or existing initiatives that include new technologies. PowerStream would like to highlight that it is challenging to accurately predict participation rates, particularly in the absence of final budget values. Much of the proposed programming activity represents an amplification of what has been undertaken in the past and there is a degree of uncertainty regarding uptake. Additionally, savings adjustments that are not controlled by us, such as free rider rates, can have dramatic impacts on the outcome. In combination, these uncertainties mean that while we will make best efforts to achieve our targets, we are unable to provide any guarantees regarding the outcome.

Finally, PowerStream also submits that it is important that the funding from the OPA-Contracted Province-Wide CDM Programs must be consistent and sufficient to cover the significant programming activities contemplated in this strategy. The ability to contract quickly with the OPA for the delivery of the OPA-Contracted Province-Wide CDM Programs is an important consideration, particularly as it relates to our ability to initiate programming activities early in 2011.

## **5. OPA–Contracted Province–Wide CDM Programs**

PowerStream will participate in all OPA-Contracted Province-Wide CDM Programs for the four year period starting January 1, 2011. These include the Consumer Program, Commercial and Institutional Program, Industrial Program and Low Income Program. PowerStream will deploy the programs in accordance with the program rules as designed by the OPA and LDCs.

PowerStream understands that the OPA is continuing further development work on the program budget. As a result, PowerStream will not submit program specific budget information at this time, and, as indicated above, the absence of the final budgetary values introduces a degree of uncertainty to the program participation estimates.

The savings estimates are the result of an assessment of the potential for each program in PowerStream’s service territory and are based upon a series of assumptions and estimates as described in Section 4.1.

### **5.1 Consumer Program**

The Consumer Program will provide incentives to both existing home owners and developers/builders to motivate the installation of energy efficiency measures in both existing and new home construction. The program has a number of initiatives, targeting a variety of activities and channels.

PowerStream will deploy the program, for the four year period starting January 1, 2011. Full program details are available on the OPA’s website at <http://icon.powerauthority.on.ca/>. Table 5.1.1 contains a sample of the Consumer Program initiatives.

**Table 5.1.1 Consumer Initiatives and Description**

<b>Initiatives</b>	<b>Description</b>
Instant Rebates	In-store discounts on energy efficient products
Midstream Electronics Incentive	Retail promotion of energy efficient televisions
Midstream Pools Incentive	Retail promotion of “right sized” pool equipment
HVAC Rebates	On-line rebates on high efficiency replacement of heating/cooling systems (contractor initiated)
Appliance Retirement	Free pick-up/decommissioning of old, working inefficient appliances
Exchange Events	Room air conditioner and dehumidifier exchange events at retailers
Residential New Construction	Incentives for builders to construct efficient, smart, and integrated new homes
Residential Demand Response	Free, installed direct load control devices and in-home display systems/capability. Non-DR offers: subsidized in-home display systems/capabilities

Table 5.1.2 below provides the projected energy and demand reductions for the OPA Consumer Program. At the time of filing the projected budgets are not available.

**Table 5.1.2 Consumer Program Summary**

<b>Consumer Program</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Projected Reductions in Peak Provincial Demand (MW)	7.8	8.0	8.2	7.6
Projected Reductions in Electricity Consumption (MWh)	12,440	10,794	11,107	10,502
Cumulative Projected Reductions in Electricity Consumption (MWh)	12,440	33,071	64,809	107,049

## **5.2 Commercial and Institutional Program**

The Commercial and Institutional (“C&I”) Program is designed to assist building owners and operators as well as tenants and occupants in achieving demand and energy savings, and to

facilitate a culture of conservation among these communities as well as the supply chains which serve them. This is achieved by offering incentives throughout the continuum of CDM activities including audit and design team incentives as well as end user focused incentives.

PowerStream will deploy the program, for the four year period starting January 1, 2011, as it applies to all the customer segments in PowerStream's service territory. Full program details are available on the OPA's website at <http://icon.powerauthority.on.ca/>. Table 5.2.1 contains a sample of the Commercial and Institutional Program initiatives.

**Table 5.2.1 Commercial and Institutional Initiatives and Description**

<b>Initiative</b>	<b>Description</b>
New Construction	Incentives for new buildings to exceed existing codes and standards for energy efficiency
Equipment Replacement	Traditionally known as ERIP, incentive program designed to encourage high-efficiency electricity retrofits to existing structures
Direct Installed Lighting	Direct install of energy efficiency measures in the premises of small business customers in the General Service <50kW class
Small Commercial Demand Response	Free, installed direct load control devices and display systems/capability. Non-DR offers: subsidized display systems/capabilities
DR1	An initiative where distribution-connected electricity customers voluntarily provide DR capabilities to reduce peak demand and increase system reliability
DR3	An initiative where distribution-connected electricity customers to provide DR capability to mandatorily reduce peak demand and increase system reliability

Table 5.2.2 below provides the projected energy and demand reductions for the OPA Commercial and Institutional Program. At the time of filing the projected budgets are not available.

**Table 5.2.2 Commercial and Institutional Program Summary**

<b>Commercial &amp; Institutional Program</b>	<b>2011</b>	<b>2012</b>	<b>2013</b>	<b>2014</b>
Projected Reductions in Peak Provincial Demand (MW)	11.5	11.8	12.2	11.5
Projected Reductions in Electricity Consumption (MWh)	24,093	24,893	25,741	24,093
Cumulative Projected Reductions in Electricity Consumption (MWh)	24,093	73,080	147,808	246,630

### 5.3 Industrial Program

The Industrial Program will provide incentives to both existing and new industrial customers to motivate the installation of energy efficiency measures. PowerStream will deploy the Industrial Program in accordance with the program rules as designed by the OPA for the four year period commencing January 1, 2011. Full program details are available on the OPA's website at <http://icon.powerauthority.on.ca/>. Table 5.3.1 contains a sample of the Industrial Program initiatives.

**Table 5.3.1 Industrial Initiatives and Description**

Initiative	Description
Industrial Equipment Replacement	Traditionally known as ERIP, incentive program designed to encourage high-efficiency electricity retrofits to existing structures
DR1	An initiative where distribution-connected electricity customers voluntarily provide DR capabilities to reduce peak demand and increase system reliability
DR3	An initiative where distribution-connected electricity customers provide mandatory DR capability to reduce peak demand and increase system reliability
Industrial Accelerator	Capital incentives and enabling initiatives aimed at improving the energy efficiency of equipment and production processes

Table 5.3.2 below provides the projected energy and demand reductions for the OPA Commercial and Institutional Program. At the time of filing the projected budgets are not available.

**Table 5.3.2 Industrial Program Summary**

Industrial Program	2011	2012	2013	2014
Projected Reductions in Peak Provincial Demand (MW)	4.1	4.4	4.3	4.4
Projected Reductions in Electricity Consumption (MWh)	5,519	7,006	5,582	6,899
Cumulative Projected Reductions in Electricity Consumption (MWh)	5,519	18,043	36,150	61,156

## **5.4 Low Income Program**

The final design of the program has not been released by the OPA. PowerStream has prepared preliminary estimates of savings, given our understanding of the proposed design. These are included in this strategy; however, an associated budget has not been prepared. Note as well that these savings estimates may change once the program design is finalized.

PowerStream expects to rely heavily on housing providers and low income/assisted housing non-government associations to assist in the delivery of the program. These organizations already have established methods for engaging the target participants. PowerStream's role will primarily focus on ensuring equity of access and approach and appropriate messaging.

## **6. Potential Board-Approved CDM Programs**

PowerStream is a member of the Coalition of Large Distributors (CLD), which consists of Enersource Hydro Mississauga, Horizon Utilities Corporation, Hydro Ottawa, PowerStream, Toronto Hydro, and Veridian Connections Inc. Hydro One Networks has worked with the CLD on planning for CDM. Through this affiliation, PowerStream is aware that some of these distributors will be applying for Board-Approved CDM programs. PowerStream intends to review these programs to determine if they would pertain to its customer base, and if they could be cost effectively deployed within its service area. Following this review, and through independent assessment of the potential Board-Approved Programs, PowerStream may submit an application for Board-Approved Programs.

## **7. Program Mix**

As indicated, PowerStream expects to achieve its CDM targets through the delivery of the OPA Contracted Province-Wide CDM Programs. The OPA has released summary CDM guidelines for the residential, commercial and industrial segments, with a low income consumer document to be issued at a later date. PowerStream has determined that it will participate in these programs and in the underlying initiatives where the initiative aligns with its customer demographics.

As a result of PowerStream's plan to be engaged in the OPA-Contracted Province-Wide CDM Programs, all our customers will have the opportunity to participate in the various initiatives as appropriate.

In general, the OPA programs have been designed to be cost effective and provide meaningful CDM savings. Consequently, the programs and initiatives have been developed to optimize CDM impacts by focusing on certain customer classes. PowerStream expects to review each CDM initiative and deliver those projects that yield effective CDM savings in their respective customer groups. Table 7.1.1 shows the various initiatives and their target customer group. As shown, all customers in our franchise will have access to programs appropriate for their needs.

**Table 7.1.1 Program Coverage**

<b>Program Coverage by Customer Type</b>				
Program or Program Element	Customer Type			
	Residential	Residential Low Income	Commercial & Institutional	Industrial
Instant Rebates	X	X		
Midstream Electronics Incentive	X	X		
Midstream Pools Incentive	X	X		
HVAC Rebates	X	X		
Appliance Retirement	X	X		
Exchange Events	X	X		
Residential New Construction	X	X		
Residential Demand Response	X	X		
Residential Low Income		X		
C&I New Construction			X	
Equipment Replacement			X	
Direct Installed Lighting			X	
Small Commercial DR			X	
DR1 – Commercial & Institutional			X	
DR3 – Commercial & Institutional			X	
Industrial Equipment Replacement				X
DR1 - Industrial				X
DR3 - Industrial				X
Industrial Accelerator				X

## 8. CDM Programs Co-ordination

PowerStream will continue to strive for CDM efficiencies in program delivery by building both on our strong relationships with our customers and on the current relationships that exist with other LDCs in the province. Currently, PowerStream collaborates with the members of the CLD and Hydro One on a variety of activities, including program delivery. It is our goal to continue to enhance this relationship and further explore our synergies within the natural gas LDCs in the province to ensure all customers are served in an efficient and coordinated manner.